



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,828	07/14/2003	Ajay Kumar	5681-15100	5939
35690 7590 06/27/2007 MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C. P.O. BOX 398 AUSTIN, TX 78767-0398			EXAMINER TRUONG, CAMQUY	
			ART UNIT 2195	PAPER NUMBER
			MAIL DATE 06/27/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/618,828

Applicant(s)

KUMAR ET AL.

Examiner

Camquy Truong

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 7/1/05 & 11/2/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Claims 1-36 are presented for examination.
2. It is noted that although the present application does contain line numbers in the specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the examiner and Applicant all future correspondence should include the recommended line numbering.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The claim language in the following claim is not clearly understood:

i. As to claim 5, it is not clearly understood whether "transaction manager is paused" or "transactions is paused".

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2195

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dayal (U.S. Application Publication 2004/0172385 A1) in view of Doan et al. (U.S. Patent 6,421,661 B1).

6. As to claims 1 and 14, Dayal teaches the invention substantially as claimed including:

a system, comprising:

one or more processors ( server, paragraph 29);

a transaction manager configured to manage the one or more transactions ( can pause a query or resume the query, paragraph 27, paragraph 29 ) initiated by the one or more applications ( a query request is initiated by the client application 20, paragraph 42, lines 12-13), wherein the transaction manager is configured to pause the one or more transactions in response to a pause request (governor can pause execution of the query, paragraphs 38-39; paragraph 42, lines 20-23) and to resume the one or more transactions in response to a resume request ( the governor signals the query engine to resume the query, paragraph 39, lines 11-16; paragraph 43), wherein while paused, the transaction manager does not allow the one or more transactions to complete (the continue request is processed by the governor which sends the query continuation

command to the query engine, paragraph 40, lines 1-6; paragraph 43. It would have been obvious that while pausing the request until it receive the continuation command).

7. Dayal does not explicitly teach memory coupled to the one or more processors and configured to store program instructions executable by the one or more processors to implement, and one or more applications configured to initiate one or more transactions, wherein each of the one or more transactions comprises requests to access one or more data sources.

8. However, Doan teaches memory coupled to the one or more processors and configured to store program instructions executable by the one or more processors (these instructions, when read, executed by the client computer or server computer, col. 7, line 66 – col. 8, line 7) to implement, and one or more applications configured to initiate one or more transactions, wherein each of the one or more transactions comprises requests to access one or more data sources (the application program dynamically loads defined objects into the objects to access the data base, col. 8, lines 33- 38; col. 9, lines 54-56).

9. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of memory coupled to the one or more processors and configured to store program instructions executable by the one or more processors to implement, and one or more applications configured to initiate one or

Art Unit: 2195

more transactions, wherein each of the one or more transactions comprises requests to access one or more data sources as taught by Doan to the invention of Dayal because this allows to create dynamically requesting upon demand by application programs for accessing to the database as a result of eliminating the need for complicated Information Management System transaction and programming.

10. As to claim 2, Dayal teaches the transaction manager is configured to change the state of the one or more transactions (paragraph 43).

11. As to claims 3-4, Dayal teaches the transaction manager is configured to request permission to change the state of the one or more transactions (paragraph 43).

12. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dayal (U.S. Application Publication 2004/0172385 A1) in view of Doan et al. (U.S. Patent 6,421,661 B1), as applied to claim 1 above, and further in view of Fowler et al. (U.S. Patent 4,502, 116).

13. As to claims 5-8, Dayal and Doan do not explicitly teach the transaction manager is paused, the system is configured to perform operations on one or more individual transactions. However, Fowler teaches the transaction manager is paused; the system is configured to perform operations on one or more individual transactions (col. 4, lines 60-65).

14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of transaction manager is paused, the system is configured to perform operations on one or more individual transactions as taught by Fowler to the invention of Dayal and Doan because this allow the system to pause and resume execution of the application program in an efficient and graceful manner.

15. As to claim 9, Dayal teaches the operations comprise one or more from the following: rollback, abort, partial rollback, add/remove participant, and commit (paragraph 37).

16. Claims 10, 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dayal (U.S. Application Publication 2004/0172385 A1) in view of Doan et al. (U.S. Patent 6,421,661 B1), as applied to claim 1 above, and further in view of Klein et al. (U.S. Patent 6,728,958 B1).

17. As to claims 10, 12-13, Dayal and Doan do not explicitly teach one or more of the transactions are local and global transactions. However, Klein teaches one or more of the transactions are global transactions (col. 4, lines 21-41; col. 5, lines 18-24).

Art Unit: 2195

18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of one or more of the transactions are global transactions as taught by Klein to the invention of Dayal and Doan because this allow transactions to be performed simultaneously as desired for optimal system performance.

19. As to claim 11, Dayal teaches while paused, the transaction manager is not allowed to change the state of the one or more transactions to the committing state (paragraph 31).

20. Claims 15-18, 25-29, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fowler (U.S. Patent 4,502, 116) in view of Lomet et al. (U.S. Patent 5,212, 788).

21. As to claims 15, and 26, Fowler teaches the invention substantially as claimed including: a method, comprising:

generating a request to pause a manager (a stopping or pausing of one processor in the multiple processor system, col. 2, lines 7-9; col. 10, lines 27-30);

pausing the manager in response to said request, wherein while the transaction manager is paused, transactions managed by the manager are prohibited from completing (col. 10, lines 27-37) ;



generating a request to resume the manager (col. 2, lines 17-25; col. 8, lines 52-56; col. 11, lines 16-20); and

resuming the manager in response to said request, wherein when the manager is resumed, transactions managed by the manager are allowed to complete (col. 11, lines 16-20; col. 12, lines 10-25).

22. Fowler does not explicitly teach that pausing the transaction manager. However, Lomet teaches pausing the transaction manager (col. 11, lines 11-15).

23. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching pausing the transaction manager as taught by Lomet to the invention of Fowler because this allow to ensure that the timestamp order of transactions is consistent throughout the distributed database and is consistent with the true serialization order of the transactions. It also permits optimization of the commit protocol itself, which enhances performance of the system.

24. As to claims 16-17, 25, 27-28 and 36, Fowler teaches pausing comprises prohibiting the transaction manager from changing the state of the one or more transactions (col. 10, lines 63-67), wherein the transaction manager attempts to perform a state change on a transaction in response to input to the transaction manager (col. 5, lines 1-10).

25. As to claims 18 and 29, Fowler teaches state change comprises a change from a nonexistent state to an active state (col. 10, lines 63-67).

26. Claims 19-24, 30-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dayal (U.S. Application Publication 2004/0172385 A1) in view of Lomet et al. (U.S. Patent 5,212, 788), and further in view of Klein et al. (U.S. Patent 6,728,958 B1).

27. As to claims 19, and 30, Dayal and Lomet do not explicitly teach input comprises notification that an application has executed a commit transaction command. However, Klein teaches notification that an application has executed a commit transaction command (col. 4, lines 63-64).

28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching notification that an application has executed a commit transaction command as taught by Klein to the invention of Dayal and Lomet because this allow transactions to be performed simultaneously as desired for optimal system performance.

29. As to claim 20, and 31, Klein teaches state change comprises a change from an active state to a preparing state.

~~30.~~ As to claim 21, and 32, Klein teaches notification that all participants are

prepared commit the transaction (col. 2, lines 32-36, and lines 53-67).

31. As to claims 22-23, and 33-34, Klein teaches a change from a preparing state to a committing state (col. 2, lines 14-23).


32. As to claim 24, and 35, Klein teaches state change comprises a change from a committing state to a nonexistent state (col. 1, lines 10-21; col.6, lines 15-21).

### ***Conclusion***

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (571) 272-3773. The examiner can normally be reached on 8:00Am – 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3756.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

  
**MENG-AI AN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**